Generated by AI, and very, very lightly edited by Matt.

Day 1 Part 1 Meeting notes:

- **Meeting Agenda:** The meeting agenda was outlined, including presentations by various participants on topics such as aviation weather systems, weather observations in Alaska, and modernization of aviation weather systems.
  - **Agenda Overview:** The meeting began with an overview of the agenda, highlighting the presentations scheduled for the day. These included discussions on aviation weather systems, weather observations in Alaska, and the modernization of aviation weather systems. Specific speakers and their topics were mentioned, such as Tom Ryan replacing Gordy Rother, Randy Bass discussing aviation weather system shortfalls, and Greg Dyer on weather observations in Alaska.
  - **Session Details:** The morning session focused on certified sensors, while the afternoon session was dedicated to non-certified sensors. This structure was intended to lay the foundation for the rest of the week's discussions. Elizabeth noted the importance of these sessions in setting the stage for future topics.
- **Presentation on Aviation Weather Systems:** Tom presented on aviation weather systems, discussing the background, requirements, and future plans. He mentioned that the FAA is the Meteorological Authority for aviation weather in the US and highlighted the importance of certified systems.
  - **FAA Authority:** Tom emphasized that the FAA is the Meteorological Authority for aviation weather in the US. This authority stems from historical agreements and the FAA's role in maintaining and certifying automated weather systems like ASOS and AWOS.
  - **System Requirements:** Tom outlined the requirements for aviation weather systems, including the need for weather data to be provided or approved by the National Weather Service or the FAA. He highlighted that current regulations do not reference certified weather, which is an internal term used by tech OPS.
  - **Future Plans:** Tom discussed future plans for aviation weather systems, including ongoing efforts to modernize and improve these systems. He mentioned the importance of maintaining high standards for data quality and reliability to ensure aviation safety.
- **Certification and Maintenance of ASOS Systems:** Tom explained the certification process for ASOS systems, including the role of FAA maintenance technicians and the challenges of maintaining older systems. He emphasized the importance of certified systems for aviation safety.
  - **Certification Process:** Tom detailed the certification process for ASOS systems, which involves FAA maintenance technicians performing validation and verification (V&V) to ensure systems meet required standards. This process is crucial for maintaining the reliability and accuracy of weather data used in aviation.
  - **Maintenance Challenges:** Tom highlighted the challenges associated with maintaining older ASOS systems, including outdated technology and

communication pathways. He noted that these systems require significant effort to keep operational, which is essential for aviation safety.
    - **Importance of Certification:** Tom stressed the importance of certified systems in aviation, explaining that certified weather data is critical for safe flight operations. He mentioned that both automated systems and human weather observers must meet certification standards set by the FAA and the National Weather Service.
- **Use of Non-Certified Systems:** Tom discussed the use of non-certified systems, such as the RTMA product by the National Weather Service, as backup information for temperature and altimeter settings. He mentioned ongoing research projects to evaluate the effectiveness of non-certified systems.
    - **RTMA Product:** Tom explained that the Real-Time Mesoscale Analysis (RTMA) product by the National Weather Service has been used as backup information for temperature since 2015 and for altimeter settings since later research showed its reliability. This product is an example of a non-certified system providing valuable data.
    - **Research Projects:** Tom mentioned ongoing research projects aimed at evaluating the effectiveness of non-certified systems. These projects include using camera images for microscale forecasts and assessing the quality of data from various non-certified sources to enhance aviation safety.
    - **Non-Certified Systems:** Tom discussed the potential for non-certified systems to be used in aviation, provided they meet certain quality standards. He emphasized that while certified systems are preferred, non-certified systems can offer valuable backup data, especially in situations where certified systems are unavailable.
- **Questions and Concerns:** Participants raised questions about the certification process, ongoing quality control, and the impact of staff reductions on the maintenance of ASOS systems. Tom and other experts provided insights and addressed these concerns.
    - **Certification and Quality Control:** Participants asked about the certification process and ongoing quality control for ASOS systems. Tom explained that the FAA works closely with tech OPS to ensure systems meet required standards and that ongoing quality control is a collaborative effort involving multiple agencies.
    - **Impact of Staff Reductions:** Heather Reeves raised concerns about the impact of staff reductions at the National Weather Service on the maintenance of ASOS systems. Tom acknowledged these concerns and mentioned that Congress has also raised similar questions, emphasizing the need for reliable maintenance to ensure system functionality.
    - **Maintenance and Reporting:** Bill Bauman provided additional insights into the maintenance challenges in Alaska, noting that the primary issue is often related to communication pathways rather than the sensors themselves. He mentioned that new technologies like Starlink have shown promise in improving communication reliability.
- **What's In a METAR? Insight into Creating an Automated Observation:** Scott Landolt (AI notes N/A)

- **Automated Weather Station Shortfalls (Location, Representativeness and Measurement Errors):** Randy Bass (AI notes N/A)
- **Weather Observations in Alaska:** Greg Dyer discussed the challenges and gaps in aviation weather observations in Alaska, highlighting the importance of reliable weather information for aviation safety. He mentioned ongoing efforts to improve weather station coverage and maintenance in the region.
    - **Challenges in Alaska:** Greg Dyer highlighted the significant challenges in aviation weather observations in Alaska, including the vast and remote geography, harsh weather conditions, and limited infrastructure. These factors contribute to frequent outages and gaps in weather data, which can impact aviation safety.
    - **Efforts to Improve Coverage:** Greg mentioned ongoing efforts to improve weather station coverage in Alaska, including the installation of new AWOS and ASOS systems funded by recent legislation. These efforts aim to enhance the availability and reliability of weather data for aviation operations in the region.
    - **Maintenance Issues:** Greg discussed the maintenance challenges faced in Alaska, where weather stations often remain out of service for extended periods due to the difficulty of accessing remote sites. He emphasized the need for better maintenance strategies and resources to ensure continuous operation of weather stations.
- **Economic Impact of Weather Station Outages:** Mike Jones provided insights into the economic impact of weather station outages in Alaska, including food spoilage, delayed medicine deliveries, and challenges with air ambulance services. He emphasized the importance of reliable weather information for the well-being of remote communities.
    - **Food Spoilage:** Mike explained that weather station outages in Alaska can lead to significant food spoilage, as delays in air transport prevent timely delivery of perishable goods. This issue is particularly severe in remote communities that rely heavily on air transport for their supplies.
    - **Medicine Deliveries:** Mike highlighted the impact of weather station outages on the delivery of medicines, noting that delays can result in critical shortages and affect the health of residents in remote areas. He provided examples of communities where medicine deliveries have been delayed for weeks due to weather-related transport issues.
    - **Air Ambulance Services:** Mike discussed the challenges faced by air ambulance services during weather station outages, including the inability to land in certain areas without reliable weather data. He shared an example of a life-threatening situation where an air ambulance could not land due to an AWOS outage, emphasizing the critical need for reliable weather information.
- **Modernization of ASOS Systems:** Kent Jensen presented on the modernization of ASOS systems, discussing the challenges and progress in updating the technology and infrastructure. He highlighted the importance of modernizing communication networks and the ongoing efforts to improve the reliability of ASOS systems.
    - **Modernization Efforts:** Kent Jensen discussed the ongoing efforts to modernize ASOS systems, including updating the technology and infrastructure to improve

reliability and performance. He mentioned that the current systems are based on 1980s technology and require significant upgrades to meet modern standards.
    - **Communication Networks:** Kent emphasized the importance of modernizing communication networks to support the updated ASOS systems. He explained that many current systems rely on outdated communication methods, such as 56K modems, which limit data transfer capabilities and overall system performance.
    - **Challenges and Progress:** Kent outlined the challenges faced in the modernization process, including supply chain issues and the need for coordination between multiple agencies.
- **Non-Federal AWOS Systems:** Andrew Kuchel discussed the differences between non-federal AWOS systems and federal ASOS systems, highlighting the cost-effectiveness and flexibility of non-federal systems. He emphasized the importance of maintenance and reliability for aviation safety.
- **Automated Thunderstorm Reports:** Heather Reeves presented on the accuracy and challenges of automated thunderstorm reports from ASOS systems. She raised questions about the consistency and reliability of these reports and suggested further investigation into the algorithms and training of weather observers.

Follow-up tasks: None